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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,071	03/22/2004	Alain Morissette	WKV-02	4069
38979	7590	12/13/2005	EXAMINER	
CRAVEN & REID, LLC 12 E. STONE AVENUE GREENVILLE, SC 29609			HURLEY, SHAUN R	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,071

Applicant(s)

MORISSETTE ET AL.

Examiner

Shaun R. Hurley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-131 is/are pending in the application.
- 4a) Of the above claim(s) 33-131 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Claims 1-32 in the reply filed on 21 November 2005 is acknowledged. The traversal is on the ground(s) that there is not a burden on examiner to examine both inventions. This is not found persuasive because Examiner has specifically pointed out where the two inventions differ, as well as the multiple species therein. Therefore, the requirement is still deemed proper and is therefore made FINAL. Examiner will, however, acknowledge Applicant's arguments concerning the relationship of claims 31 and 32 to independent claim 1. Examiner has reviewed the content therein, and agrees with Applicant. As such, the elected claims are considered to be claims 1-32.

2. Claims 33-131 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 21 November 2005.

Drawings

3. The drawings are objected to because Figure 1 is incorrect. Figure one specifically shows monofilament 10 being wrapped around a single yarn A, which is incorrect. The specification specifically teaches that multiple yarns A are twisted together, and then that assembly is wrapped with monofilament 10. Applicant needs to correct the drawings to more accurately show the application of monofilament 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing

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on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the yarns can be knitted, since claim 1 specifically requires braiding. Braiding and knitting are NOT interchangeable terms. Each is a specific process for interlacing yarns, and as such, Examiner is unclear what to consider claim 24 as specifically teaching.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 6, 7, 11-21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (5901632) in view of Briggs (346577).

Ryan teaches a method of manufacturing a rope from different materials, comprising heating and stretching (Figure 4a), twisting a plurality of yarns to form a yarn assembly (14), braiding a plurality of the yarn assemblies to form a braided plait (12), and braiding a plurality of the assemblies to form the rope (10). While Ryan essentially teaches the invention as discussed above, he fails to specifically teach wrapping the twisted yarn assembly with a wrapping filament, which Briggs teaches (Figures 1 and 2, detail A). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a wrapping filament as taught by Briggs in the rope of Ryan, so as to ensure internal integrity in the rope structure. The ordinarily skilled artisan would appreciate the benefit of wrapping the yarn assembly, so as to maintain the twisted structure, thus preventing unraveling, and consequently prolonging the useful life of the rope. Likewise, the use of either nylon or polyester would have been obvious to one of ordinary skill in the art, since such materials are well known in the braided rope art.

In regards to equal numbers of S and Z twist, the ordinarily skilled artisan would understand to do this, so as to cancel out the residual twist within the yarn, and provide for a net zero twist, thus balancing the rope.

In regards to a specific wrapper filament diameter of 0.24 mm, the ordinarily skilled artisan would understand to do this, since the diameter needs to be large enough to maintain

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strength, but small enough to not warp the basically round shape of the yarn assemblies being wrapped, thus ensuring a smooth, balanced rope.

In regards to Applicant's numerous limitations of dimensions, including 700 denier, 22 twists per foot, 2500-5400 tex, and such, the specification contains no disclosure of either the critical nature of the claimed dimensions, or any unexpected results arising therefrom, and that as such the dimensions were arbitrary and therefore obvious. Such tex, diameter, and twist dimensions cannot be basis for patentability, since where patentability is said to be based upon diameter or another dimension, or another variable in the claim, the applicant must show that the claimed dimension is critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934 (Fed. Cir. 1990). One of ordinary skill in the art would be able to determine through routine experimentation the ideal dimension for a particular application.

In regards to the specific pick repeats, Applicant discloses in his specification that such is routine and well known in the art, and as such, would have been obvious to one of ordinary skill in the art.

8. Claims 9, 10, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan in view of Briggs as applied to claims 1-3, 6, 7, 11-21, and 25-27 above, and further in view of Eisler (3960050).

The combination of Ryan in view of Briggs essentially teaches the invention as discussed above, but fails to specifically teach applying a polyurethane coating via a dip bath, which Eisler teaches (Abstract, Figure 1). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a polyurethane bath as taught by Eisler, so as to strengthen the rope components, from both external stresses, and internal friction. The ordinarily

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skilled artisan would appreciate the benefits known from using polyurethane coatings, and would have done such.

9. Claims 22, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan in view of Briggs as applied to claims 1-3, 6, 7, 11-21, and 25-27 above, and further in view of Foote et al (4321854).

The combination of Ryan in view of Briggs essentially teaches the invention as discussed above, but fails to specifically teach a core, which Foote teaches is well known (Figure 1). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a core as taught by Foote in the rope of the combination, so as to increase the tensile strength in the rope. A core to a rope provides a longitudinal member to receive tensile stresses placed upon the core. Such a member would enable the braided components to retain more of their residual strength, thus prolonging the useful life of the rope.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Knudsen et al (6945153), Smeets et al (2005/0229770), Orser (3805667), Ryan (5931076), and Feichtinger et al (5934168) all teach what is well known in the rope art.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R. Hurley whose telephone number is (571) 272-4986. The examiner can normally be reached on Mon - Fri, 6:30 am - 3:00 pm, off second Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SRH
08 December 2005


Shaun R Hurley
Patent Examiner
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